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CHAIR LIKE STOOL FOR FLOOR WORK

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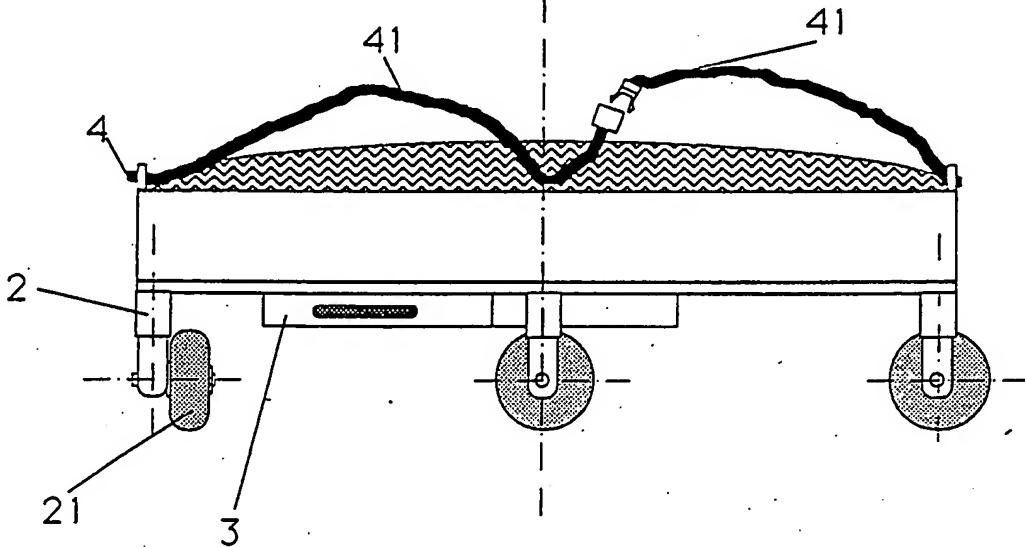


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(21) International Application Number: PCT/IT92/00077 (22) International Filing Date: 7 July 1992 (07.07.92) (30) Priority data: UD91U000043 29 October 1991 (29.10.91) IT (71) Applicant (for all designated States except US): PAVIMENT- LEGNO DEL DR. DE LUCA R. & C. S.N.C. [IT/IT]; Via Udine, 54, I-33040 Faedis (IT). (72) Inventors; and (75) Inventors/Applicants (for US only) : DE LUCA, Rolando [IT/IT]; BERNARDIS, Fausto [IT/IT]; GUBEILA, Claudio [IT/IT]; DE LUCA, Pio [IT/IT]; Via Udine, 54, I-33040 Faedis (IT). (74) Agent: D'AGOSTINI, Giovanni; D'Agostini Organizzaz- ione, Via G. Giusti, 17, I-33100 Udine (IT).	(81) Designated States: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG). Published With international search report.
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(54) Title: CHAIR LIKE STOOL FOR FLOOR WORK



(57) Abstract

The object of the invention is to provide a chair like stool for floor works, characterized by the fact of being low, that is substantially deprived of legs; in place of the legs having at least three small feet with small wheels (2, 21).

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1 DESCRIPTION

2

CHAIR LIKE STOOL FOR FLOOR WORK

4

5 Technical Field

6 My invention relates to a chair like stool for floor work.

7 According to the present innovation for floor work we intend any type
8 of interior floor that a person has to carry out such as parquets laying, tiling,
9 laying of floor linings, floor cleaning work, hydraulic work within the floor,
10 decorative floor workings, etc.

11

12 Background Art

13 It is known that the above mentioned work types and similar the
14 persons undertaking these operations, work with a curved back resulting in
15 back-ache within a few hours of maintaining such a position.

16 The operators prefer working on their knees, however even in these
17 conditions the knees after a little time start to hurt.

18 It is also known that due to the laying of cobblestone, for example such
19 as road porphyry, the operators, to avoid to these drawbacks, use a stool
20 endowed with a long central peg about 20 to 30 cm long, on which they sit so
21 as to facilitate their working position.

22 This stool if suitable for the type of work, stating that one generally
23 lays the porphyry on a sand stratum, is however unsuitable to be used for
24 working on a floor that has a substantially rigid plane, because of the already
25 precarious equilibrium that the single central shank provides, while being
26 suitably adjusted as on contrary happens for use on sandy bottoms due to its
27 sand-penetration.

28 This stool with its single shank, however presents the drawback of

1 being extract and repenetrated in the sand-earth every time the operator
2 moves to a different position, therefore it certainly cannot be considered
3 suitable or advantageous for use on rigid pavements as substantially found
4 indoors.

5 Some operators eventually sit on the floor during their work, but in this case,
6 the operator self :

7 - is forced to raise himself every time he wants to move;
8 - ruins his trousers unless he uses a cushion that will result in the
9 deterioration of and also implicates the major work of his continuous
10 movement.

11 A further important factor of lost of productivity derives from the fact that
12 the operator often needs equipment for laying and work that he must place on
13 the floor, equipment that obstacles the movement and causes loss of time due
14 to the continuous search and movement of them.

15

16 Disclosure of Invention

17 Scope of the present invention is to avoid the above-mentioned
18 drawbacks.

19 This and other scopes are reached as claimed with a chair like stool for
20 floor work, characterized in that:

21 - it is substantially deprived of legs;
22 - in place of the legs, small feet with small wheels are placed.

23 In this way the operator finds himself seated almost on the floor but has the
24 advantage of being able to move himself by pushing with his legs without
25 having to raise himself every time.

26 Advantageously the small feet structure is mounted on rotational means
27 making easier the possible rotation of the operator.

28 Advantageously the rotational means have a pivot giving greater

1 compactness and stability.

2 An alternative solution could be a central pivot with radiating spokes
3 whose ends support the respective small wheels.

4 Advantageously the small wheels are pivotable and are in number of
5 four, five or more, giving the seated operator greater mobility and stability .

6 Also advantageous is that the stool is padded making being seated less
7 burdensome.

8 Also advantageously, under the seat and between the small pivoting
9 wheels is realized a compartment or bag substantially horizontally disposed
10 with an opening on one side of the seat.

11 Substantially, said compartment or underseat bag results particularly
12 suitable to the putting of the operators' equipment avoiding to strew them
13 over the ground and having always to search for them.

14 Finally, the seat is circular making it easier remaining seated and so
15 facilitating the working procedure.

16 These and other advantages will appear by the following description of
17 the preferential solutions realized with the help of the included drawings
18 whose execution details are not to be considered limitative but only supplied
19 for example.

20 Figure 1 represents a schematic view of the stool according to the present
21 invention.

22 Making reference to the Figures it is disclosed that the stool indicated
23 by (1) is padded in a circular substantial form with underlying pivoting
24 small wheels (2-21) and between these, under the seat, there is a
25 compartment (3) for the housing of equipment.

26 The stool can also provide a backrest as support while sitting.

27 The stool may also be endowed with belts 4 in pairs 41 for buckling
28 itself to the body so as to allow the seat to be moved with the body while

1 working.

2 Obviously the small feet with small pivoting wheels (21) can be
3 advantageously amortized (2) and adjustable in height preferably with a nut.

4 In the drawings has been presented the four small feet with small
5 pivoting wheels (2-21) secured directly under the seat (1) through a waved
6 pivot (5) which permits an easier rotation.

7 In a less convenient solution the small wheels even in a superior
8 number can branch off in rays to a central rotational seat attack, to which
9 substantially lacks the shank or it is so short to be substantially considered
10 nonexistent, that is the amount necessary for a limited function of regulating
11 the height from 10 to 30 cm, depending to the person.

12 The central pivot solution from which departs a rays, pivot or cross
13 (as for example for office chairs) can also contain a classic backward
14 inclining device.

15 The above-mentioned spoke or cross central pivot solution makes evident the
16 advantage of greater roteability of the seat, but has the evident disadvantage of
17 being more cumbersome, heavier and difficult in applying a tool carrying
18 compartment underseat, that could be installed in the said shoulder or
19 backrest (not illustrated).

1

Claims

2 1. Chair like stool for floor works, characterized by the fact:
3 - of being low, that is substantially deprived of legs;
4 - in place of the legs having at least three small feet with small wheels (2-
5 21).

6

7 2. Chair like stool according to claim 1, characterized by the fact that
8 the said small wheels (21) pivot.

9

10 3. Chair like stool according to claim 1, characterized by the fact that
11 the said small feet (2) are fixed directly under the seat (1).

12

13 4. Chair like stool according to claim 1, characterized by the fact the
14 said small feet (2) are fixed under the seat (1) indirectly by means of a
15 vertical centre axle rotating device (5).

16

17 5. Chair like stool according to claim 1, characterized by the fact that
18 said centre axle rotating device is a pivot (5).

19

20 6. Chair like stool according to claim 1, characterized by the fact that
21 said centre axle rotating device is a cross or spoke with a central pivoting
22 rotating axle positioned under the seat.

23

24 7. Chair like stool according to claim 1, characterized by the fact that
25 said small pivoting wheels (2-21) are fixed under the seat (1) indirectly by
26 means of a cross with a central rotating pivot positioned under the seat (1)
27 and an inclinating adjustable device.

28

1 8. Chair like stool according to claim 1, characterized by the fact that
2 said small feet (2) are fixed under the seat (1) with an amortizers
3 interposition device (2).

4

5 9. Chair like stool according to claim 1, characterized by the fact that
6 the said small feet (2) are fixed under the seat (1) with an interpositioned
7 rotational device incorporating the means of height regulation.

8

9 10. Chair like stool according to claim 1, characterized by the fact that
10 the said small feet (2) are fixed under the seat (1) with an interposition of
11 threaded height regulating device (21).

12

13 11. Chair like stool according to claim 1, characterized by the fact that
14 said seat (1) has means of buckling itself (4-41) to the body of the operator.

15

16 12. Chair like stool according to claim 1, characterized by the fact that
17 said seat (1) has means of back support for the operator backrest.

18

19 13. Chair like stool according to claim 1, characterized by the fact that
20 it is padded.

21

22 14. Chair like stool according to claim 1, characterized by the fact that
23 underneath or inside the seat (1) is realized an equipment storing
24 compartment (3).

25

26 15. Chair like stool according to claim 12, characterized by the fact
27 that it comprises an equipment storing compartment obtained in the thickness
28 of the respective backrest.

1

2 16. Chair like stool according to claim 1, characterized by the fact that
3 it is in a substantially circular form.

4

5 17. Chair like stool according to claim 1, characterized by the fact that
6 its height is lower than 30 centimetres.

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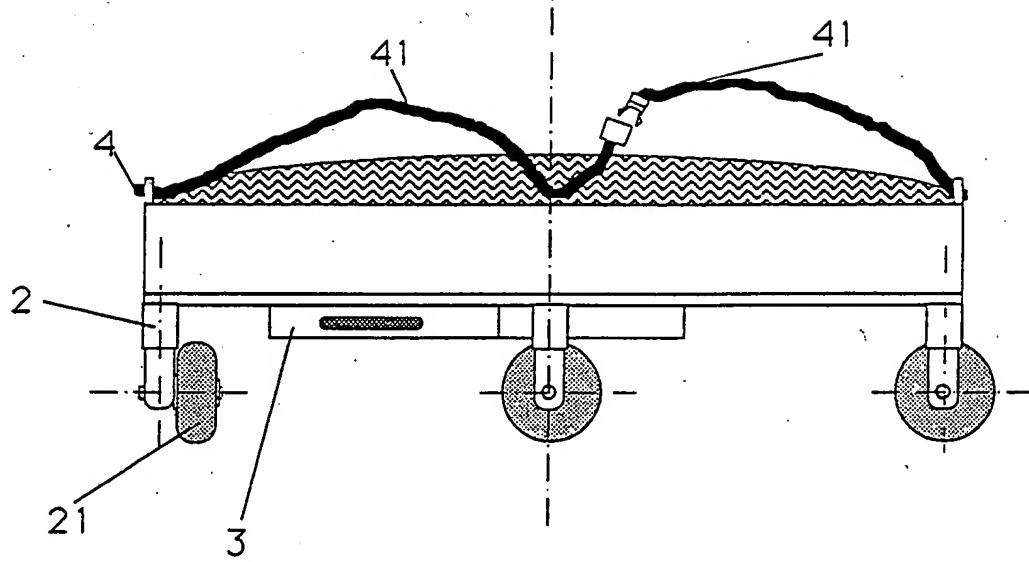


FIG. 1

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INTERNATIONAL SEARCH REPORT

International Application

PCT/IT 92/00077

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)⁶

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl. 5 A47C9/02

II. FIELDS SEARCHED

Minimum Documentation Searched⁷

Classification System	Classification Symbols
Int.Cl. 5	A47C

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched⁸III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹

Category ¹⁰	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	FR,A,2 570 262 (HAEMMERLIN) 21 March 1986 see the whole document	1,3
A	---	4-7,12, 16
X	US,A,2 448 427 (GORDON) 31 August 1948 see the whole document	1-3
A	---	11,13
X	US,A,2 033 037 (LANG) 3 March 1936 see the whole document	1
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IV. CERTIFICATION

Date of the Actual Completion of the International Search

07 DECEMBER 1992

Date of Mailing of this International Search Report

12.12.92

International Searching Authority

EUROPEAN PATENT OFFICE

Signature of Authorized Officer

VANDEVONDELE J.

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category ^a	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
A	DE, U, 8 519 315 (JOSEFOWSKY) 31 October 1985 see the whole document -----	11, 16

ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO. IT 9200077
SA 64507

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information. 07/12/92

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR-A-2570262	21-03-86	None	
US-A-2448427		None	
US-A-2033037		None	
FR-A-2591086	12-06-87	None	
DE-U-8519315	31-10-85	None	